PART II

FISCAL YEAR 2001
ADVANCED CONCEPT TECHNOLOGY DEMONSTRATIONS

Active Network Intrusion Defense (ANID)

ANID will demonstrate a capability to respond in real time to network intrusions by making changes to network devices like routers, firewalls, intrusion sensors, etc. For example, ANID will automatically disable routes used by a hacker. This ACTD will use a highly distributed architecture with intrusion detection capabilities installed at very low levels, and a collection of smart agents to correlate sensor information and distribute summary level alert information to neighboring nodes. Policy issues with the inherent capability to strike back will also be investigated. U.S. Space Command is the operational sponsor. Planned completion will be in Fiscal Year 2005.

Adaptive Battlespace Awareness (ABA)

ABA will demonstrate the potential of the Global Command and Control System (GCCS) Common Operating Picture (COP) to provide relevant information to support Commander-in-Chief (CINC), Joint Task Force (JTF), and Component -level situational awareness, decision making, execution, and planning for future military operations. It will accomplish this by: (1) providing user customized templates and filters; (2) providing links to relevant amplifying information (such as targeting, intelligence products, status, etc.; (3) introducing new force-level track types; and, (4) facilitating information aggregation at the CINC and JTF levels. U.S. European Command is the operational sponsor. Planned completion will be in Fiscal Year 2005.

Advanced Tactical Laser (ATL)

ATL will integrate a moderate-power laser, uncooled optics, and existing fire-control systems onboard a V-22, H-53, C-130, or H-47 aircraft. This capability will focus on military or law enforcement operations in an urban or suburban environment. The precision of the laser mitigates potential collateral damage, while delivering a non-lethal or lethal force up to 15 kilometers away. U.S. Special Operations Command is the operational sponsor. Planned completion will be in Fiscal Year 2005.

Advanced Technology Ordnance Surveillance (ATOS)

ATOS will demonstrate a small hybrid integrated circuit chip incorporating the most recent industry advances in miniaturized electronics technology. The successful fielding of such a system will allow the user to remotely maintain an inventory, while an integrated sensor array will provide continuous tailored environmental information, such as temperature, humidity, pressure, etc. Finally, the user will be able to achieve real-time location, quantity, and condition knowledge of the ordnance stockpile. U.S. European Command is the operational sponsor. Planned completion will be in Fiscal Year 2003.

Coalition Combat Identification (CCID)

CCID will demonstrate and transition hardware and software providing situational awareness, 'blue force' tracking interoperability systems, target identification systems, modeling and simulation, joint training, requirements and architecture definition, CONOPS, doctrine and techniques, tactics and procedures for a new combat identification capability across joint, allied and coalition operations. U.S. Joint Forces Command is the operational sponsor. Planned completion will be in Fiscal Year 2006.

Coalition Theater Logistics (CTL)

This ACTD integrates logistics information and combat support tools among coalition forces. It provides enhanced command and control of combat support for the Coalition Task Force through real-time coalition logistics information technologies and decision support tools. Technologies demonstrated will include secure coalition network and standard information tags, information collection, storage and transfer, intelligent data retrieval agents, and web-based collaboration technologies. U.S. Pacific Command is the operational sponsor and Australia is the principal coalition partner. Planned completion will be in Fiscal Year 2006.

Coastal Area Protection System (CAPS)

CAPS will demonstrate the feasibility of deploying technologies in the coastal/littoral areas for force protection. The system demonstrations will consist of technologies to support the surveillance , identification and exclusion of threats in the vicinity of ports and harbors. The goal of the ACTD is to provide a rapid capability to the US Navy, US Marine Corps, and US Army prepositioned ships, as well as a fly-away capability for contingency operations. U.S. Central Command is the operational sponsor. Planned completion will be in Fiscal Year 2001.

Hunter Standoff Killer Team (HSKT)

HSKT will integrate, demonstrate and transition for the Joint Task Force Commander: (1) cognitive decision aiding (CDA) technologies into F/A 18s, AH-64D Longbows, Blackhawk A2C2S, UAVs, ground tactical operations centers, and surface ships; (2) seamless tactical command and control of airborne manned and unmanned sensors / shooters; and, (3) CONOPS and techniques, tactics and procedures. U.S. Pacific Command is the operational sponsor. Planned completion will be in Fiscal Year 2006.

Joint Area Clearance (JAC)

This ACTD will demonstrate de-mining and explosive ordnance disposal equipment for area clearance of airfields, fuel/ammunition distribution points, hospital sites, main supply routes, and other rear area activities. Additionally, it will demonstrate tools that enhance situational awareness of clearance progress.

U.S. Joint Forces Command is the operational sponsor. Planned completion will be in Fiscal Year 2004.

Loitering Electronic Warfare Killer (LEWK)

LEWK will demonstrate a $40K Unmanned Combat Aerial Vehicle that weighs 650 pounds, carries a combined 200-pound lethal and non-lethal payload, and has eight hours endurance. The vehicle transforms from a general-purpose bomb into an aerobatic air vehicle by using unique inflatable airfoils, integrates demonstrated commercial and military technologies, and is commanded through data links and on-board sensors. The system can be air, ground, or sea launched. Recovery is via parachute. U.S. European Command is the operational sponsor. Planned completion will be in Fiscal Year 2006.

Network-Centric Collaborative Targeting (NCCT)

This ACTD networks operational intelligence, surveillance and reconnaissance (ISR) sensors (Rivet Joint, Guardrail, JSTARS, AWACS, Global Hawk, Predator, U2, EP3E, Nimrod, ASTOR) to significantly improve capability to detect, identify and locate time critical targets within their cycle times. These sensors have different, but complementary, and synergistic capabilities. Front-end networked collaborative processing of their data can greatly reduce location error and timelines. U.S. Central Command is the operational sponsor. Planned completion will be in Fiscal Year 2005.

Personnel Recovery Extraction Survivability/ Smart-Sensors (PRESS)

PRESS will demonstrate and transition: (1) real time, automated, precision evader location, tracking and re-supply devices and systems; (2) integration and improvement of extraction platform survivability technologies and options including infrared (IR) countermeasures, cognitive decision aides, wire/obstacle avoidance, millimeter wave imaging and unmanned aerial vehicles (UAV) platforms; (3) integrated, semi-automated, real-time situational

awareness and mission management through exploitation of smart sensor web technologies, UAV sensors and mission management software; and, (4) CONOPS and techniques, tactics and procedures. U.S. Joint Forces Command is the operational sponsor. Planned completion will be in Fiscal Year 2006.

Tactical Missile Penetrator (TACM-P)

TACM-P will demonstrate integration of the Army Tactical Missile System (ATACMS) booster with a Navy reentry vehicle to provide a high-availability, all-weather, survivable and short response time means to destroy hard and deeply-buried targets within the Korean theater. The TACM-P ACTD has been endorsed by three Commanders in Chief (CINCs) to solve urgent needs within their theaters.

U.S. Pacific Command is the operational sponsor. Planned completion will be in Fiscal Year 2004.

Theater Integrated Planning System (TIPS)

TIPS will automate and electronically network the current manual processes required to produce decision documents to assist in weapons of mass destruction (WMD) targeting for the theater CINCs. The ACTD will include specialized conventional strike planning. Expected benefits include improved crisis planning, CINC interoperability, reduced turnaround time for target planning, and reduced manpower of the currently labor-intensive process. U.S. Strategic Command is the operational sponsor. Planned completion will be in Fiscal Year 2004.